		•		Docket Number (Optional) 258/235U		Application Number 09/699,667				
	INF	ORMATION DISCLOSUR			Applicant(s)  Jean-Pierre Perreault et al.					
P EUseigneral sheets if necessary)					Filing Date		Group Art Unit			
					October 30, 20	00		635		
					TENT DOCUMENTS					
*EXAMINER INITIAL	NO.	TRADE MENT NUMBER	DATE		NAME	CLASS	SUBCLASS	FILING DATE  IF APPROPRIATE		
3	1.	U.S. 5,225,337	06/07/1993	Robertson et al.						
010	2.	U.S. 5,625,047	29/04/1997	Been et	al.					
					333333433					
	<u></u>									
			·		-					
					· · · · · · · · · · · · · · · · · · ·					
				FOREIG	N PATENT DOCUMENTS					
$\overline{\ \ }$	REF	DOCUMENT NUMBER .	DATE		COUNTRY	CLASS	SUBCLASS	Translation YES NO		
12	*	WO 94/02595	03/02/1994	Int. PC	T/US93/06316					
7/10	4.	WO 93/14218	22/07/1993	Int. PC	Γ/US93/00292					
	5.	WO 93/05157	18/03/1993	Int. PC	T/FR92/00840		<b>&gt;</b>			
V	6.	WO 92/07065	30/04/1992	Int. PC	T/EP91/01811					
				<u></u>						
			•	OTHER	DOCUMENTS (Including)	Author, Title, 1	Date, Pertinent Pa	ges, Etc.)		
$\int_{0.2}^{\infty}$	PCT International Search Report, PCT/CA99/00391;									
177	7.									
David V. Lazinski and John M. Taylor, (1995) Regulation of the hepatitis delta virus ribozymes: To cleave or not to cleave? RNA (1995), 1:225-233;										
EXAMINI	R	12			DATE CONSIDERED	1/1/0	<u> </u>			
EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP Section 609; Draw line through citation if not in conformance and										
not consid	not considered. Include copy of this form with next communication to applicant.									

Form PTO-A820 (also form PTO-1449) P09A/REV04

Patent and Trademark Office \* U.S. DEPARTMENT OF COMMERCE

, 🕶		•		258/235U	09/699,667				
	INE		ATION DISCLOSURE CITATION (Use to earl sheets if necessary)	Applicant(s) Jean-Pierre Perreault et al.					
		-	8	Filing Date October 30, 2000	Group Art Unit				
*EXAM	INER	2 3	THER DOCUMENTS (Including Author, Ti	illa Data Bartinant Bases Eta l					
INIT	MARIN	Za TRA'	MENAND Reanch and Hugh D. Robertson (1991)	Fificient trons cleavage and a commi	on structural motif for the				
7	3	9.	RADEL AREA DO COMENTS (Including Author, Tale, Bule, Fernment Pages, Elec)  RADEL AREA D. Branch and Hugh D. Robertson (1991) Efficient trans cleavage and a common structural motif for the ribozymes of the humans agent. Proc. Natl. Acad. Sci. USA. 88:10163-10167;						
4	U	10.	Anne T. Perrotta and Michael D. Been. (1991) A pseudoknot-like structure required for efficient self-cleavage of hepatitis delta virus RNA. Nature. 350: 434-436;						
		11.	Adrian R. Ferré-D'Amaré, Kaihong Zhou and Jennifer A. Doudna. (1998) Crystal Structure of a hepatitis delta virus ribozyme. Nature. 395: 567-574;						
-		12.	Jean-Pierre Perrault, Taifeng Wu, Benoit Cousineau, Kevin K. Ogilvie and Robert Cedergren (1990) Mixed deoxyribo- and ribo-ligonucleotides with catalytic activity. Nature. 344: 565-567;						
			Michael D. Been and Gene S. Wickham (1997) Self-cleaving ribozymes of hepatitis delta virus RNA. Eur. J. Blochem. 247: 741-753;						
		14,	Guylaine Roy, Sirinart Ananvoranich and Jean-Pierre Perreault, (1999) Delta ribozyme has the ability to cleave in trans an mRNA, Nucl. Acid Res. 27:942-948;						
		15.	Sirinart Ananvoranich, Daniel A. Lafontaine and Jean-Pierre Perreaul (1999) Mutational analysis of the antigenomic trans-acting delta ribozyme: the alterations of the middle nucleotides located on the P1 stem Nucl. Acid Res. 27: 1473-1479;						
		16.	Wolfgang A. Pieken, David B. Olsen, Fritz Benseler, Helle Aurup, Fritz Eckstein (1991) Kinetic Characterization of Ribonuclease-Resistant 2'-Modified Hammerhead Ribozymes, Science, 253: 314-317;						
		17.	Bharat M. Chowrira, Alfredo Berzal-Herranz, Charles F. Keller and John M. Burke (1993) Four Ribose 2'-Hydroxyl Groups Essential for Catalytic Function of the Hairpin Ribozyme, J. Biol. Chem. 268: 19458-19462;						
		18.	Orna Elroy-Stein and Bernard Moss (1990) Cytop bacteriophage T7 RNA polymerase in mammalian	lasmic expression system based on con cells Proc. Natl. Acad. Sci. USA 87: 6	istitutive synthesis of 1743-6747;				
		19.	Xiang Gao and Leaf Huang (1993) Cytoplasmic expression of a reporter gene by co-delivery of T7 RNA polymerase and T7 promoter sequence with cationic liposomes Nucl. Acid Res. 21: 2867-2872;						
1	/ .	Joshua O. Ojwang, Arnold Hampel, David J. Looney, Flossie Wong-Staal and Jay Rappaport, (1992) Inhibition of human immunodeficiency virus type 1 expression by a hairpin ribozyme Proc. Natl. Acad. Sci USA 89: 10802-10806;							
EXAMIN			12-	DATE CONSIDERED					
*EXAMIN	NER: In lered. I	itial if ci	citation considered whether or not citation is in conforma copy of this form with next communication to applicant.	ince with MPEP Section 609; Draw line thr	rough citation if not in conformance and				

P098/REV04

## Docket Number (Optional) Application Number 09/699,667 258/235US Applicant(s) INFORMATION DISCLOSURE CITATION Jean-Pierre Perreault et al. (Use several sheets if necessary) Filing Date Group Art Unit October 30, 2000 •EXAMINER OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.) INITIAL Shinji Makino, Ming-Fu Chang, Chien-Kou Shieh, Toshio Kamahora, David M. Vannier, Sugantha Govindarajan, Michael M. C. Cai (1987) Molecular cloning and sequencing of a human hepatitis delta (5) virus RNA,Nature 329: 21. 343-346; Jean-Pierre Perreault and Sydney Altman (1992) Important 2'-hydroxyl Groups in Model Substrates for M1 RNA, the Catalytic RNA Subunit of RNase P from *Escherichia coli*, J. Mol. Biol. 226: 399-409; 22 Sirinart Ananvoranich and Jean-Pierre Perreault (1998) Substrate Specificity of Ribozyme Cleavage, J. Biol. Chem. 273: 13182-13188; 23. Thomas W. Traut, (1994) Physiological concentrations of purines and pyrimidines. Mol. Coll. Biochem. 24. Fabien Côté and Jean-Pierre Perreault (1997) Peach Latent Mosaic Viroid is locked by a 2',5'-Phosphodiester Bond Produced by In Vitro Self-ligation, J. Mol. Biol. 273: 533-543; 25.. Daniel Lafontaine, Stéphane Mercure and Jean-Pierre Perreault (1997) Update of the viroid and viroid-like sequence database: addition of a hepatitis delta virus RNA section, Nucl. Acid Res. 25: 123-125; 26.. Mei Chao, Sen-Yung Hsieh and John Taylor (1990) Role of Two Forms of Hepatitis Delta Virus Antigen: Evidence for a Mechanism of Self-Limiting Genome Replication, J. Virol. 64: 5066-5069; 27.. Stephane Mercure, Daniel Lafontaine, Sirinart Ananvoranich and Jean-Pierre Perreault (1998) Kinetic Analysis of s Ribozyme Cleavage, Biochemistry 37: 16975-16982; 28. Hamid Fauzi, Junji Kawakami, Fumiko Nishikawa and Satoshi Nishikaw (1997) Analysis of the cleavage reaction of a trans-acting human hepatitis delta virus ribozyme, Nucl. Acid Res. 25: 3124-3130. 29. M. Kashani-Sabet et al. (1992) Reversal of the Malignant Phenotype by an Anti-ras Ribozyme. Antisense 30. Research and Development 2:3-15.

\*EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP Section 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

**EXAMINER** 

DATE CONSIDERED